# UNITED STATES PATENT AND TRADEMARK OFFICE

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/630,912 | 08/02/2000 | Benjamin Russell Grimes | RPS920000021US1 | 7900 |

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| 7590 05/19/2004 | EXAMINER | |
| BRACEWELL & PATTERSON LLP | ORTIZ, XIOMARA Y | |
| INTELLECTUAL PROPERTY LAW | | |
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DATE MAILED: 05/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

| | Application No. | Applicant(s) |
|---|---|---|
| **Office Action Summary** | 09/630,912 | GRIMES ET AL. |
| | Examiner | Art Unit |
| | Xiomara Y. Ortiz | 2141 |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on <u>08 March 2004</u>.

2a)☒ This action is **FINAL**.　　　2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-33* is/are pending in the application.

　　4a) Of the above claim(s) *7,13,16,17,19,20,22 and 23* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☐ Claim(s) *1-6,8-12,14,15,18,21 and 24-33* is/are rejected.

7)☒ Claim(s) *32-33* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

　　Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

　　Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

　　a)☐ All　b)☐ Some * c)☐ None of:

　　　1.☐ Certified copies of the priority documents have been received.

　　　2.☐ Certified copies of the priority documents have been received in Application No. _____.

　　　3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
　　　　application from the International Bureau (PCT Rule 17.2(a)).

　　* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
　Paper No(s)/Mail Date <u>2</u>.

4)☐ Interview Summary (PTO-413)
　Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____ .

## DETAILED ACTION

1.    This action is responsive to the amendment and remarks filed on March 08, 2004.

Claims 1-6, 8-12, 14-15, 18, 21, and 24-33 are presented for further examination.

### *Claim Objections*

2.    Claims 32-33 are objected to because of the following informalities: The claims depend

on claim 26 which recites a "master computer system", but they seem to depend on claim 30

which recites a "program product".   If they depend on claim 26, they would be duplicate claims.

Appropriate correction is required.

### *Claim Rejections - 35 USC § 103*

3.    The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
>
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
>
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
>
> having ordinary skill in the art to which said subject matter pertains.  Patentability shall not be negatived by the
>
> manner in which the invention was made.

4.    Claims 1, 2, 4-6, 8, 9, 10, 11, 14, 15, 18, 21, and 24-33 are rejected under 35 U.S.C.

103(a) as being unpatentable over Ying U.S Patent No. 6,611,860 in view of Chiba JP No.

404096541 A.

Regarding claim 1 and 2, Ying discloses a master computer system directing a session request to all of a plurality of slave computer system all couple to a common communication channel, the master computer system thereafter transmitting on the common a second request to establish communication with only a particular slave computer system being identified by a unique identifier, the master computer system maintaining communication with only the particular slave computer system among the plurality of slaves via the common communication channel (Ying col.10 lines 1-18 for the master node polling each of the slaves nodes periodically, where each of the slaves have a unique node identification number or address (unique identifier) and for the master sending a control message to each slave of the slaves nodes where only reacts if it recognizes its own node identification number or address in the control message, and col.8 lines for main data bus 504 (common communication channel) having attached a master node and the slaves nodes). But Ying fails to disclose that the session request to all of the plurality of slaves to be in a single session and that the plurality of slaves computer systems to change from a receive mode to an answer mode in which all of the slave computer system s are in communication with the master computer system.

However Chiba teaches a master sending simultaneously a reception command to all the slaves and collecting the results of reception of data of each slave's stations (Chiba's abstract), where the slaves stations receiving the reception command and sending the results to the master implies changing the sate from receiving mode to an answer mode.

Therefore at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the above invention suggested by Ying and combining it with the invention disclosed by Chiba.

One of ordinary skill in the art would have been motivated to do this combination in order to reduce transmission time and reply time (Chiba's abstract).

Regarding claim 9 is a combination of claim 1 and 2 and therefore, claim 9 is rejected on the same rationale.

Claims 10 and 26 are the system of the combination of the method of the claims 1 and 2 and therefore they are rejected under the same rationale (Ying col.1 lines 7-10 for method and apparatus).

Claim 18 and 30, are the program product of the combination of the method of the claims 1 and 2 and therefore they are rejected under the same rationale (Ying col.6 lines 17-36 for each node performing computations necessary for its functionality and EEPROM 306 for storing programming information).

Regarding claim 4, the above combination discloses all the limitations in claim 1, and also discloses maintaining connection of the master computer system and the particular slave computer system to the common communication channel; and disconnecting all other slave computer systems except the particular salve computer system from the common communication channel (Ying col.8 lines 15-19 for "each node 530 configures as a slave node, remains in a listen node, receiving but not transmitting messages over the data bus, unless specifically requested to transmit information over the data bus by the master node", and " the slave nodes respond to the master node with an acknowledgement or a status message, Ying col.10 lines 15-16. It is preferable to establish a communication protocol to avoid collision, wherein a simple and effective communication protocol is one in which the master node for the particular data bus sends a control message for a particulars slave node, where the slave node respond with an

acknowledgement or an status message, Ying col.10 lines 20-25. These quotes comply with the limitations in claim 4, where the master and the slave communication system establish communication between a common communication channel and that the other slave communication systems remain disconnected except the slave communication system communicating from the communication channel.).

Regarding claim 5, the above combination complies the limitations in claim 1, and also discloses that while maintaining communication between the master computer system and the particular slave computer system, the master computer system issuing commands to the particular slave computer system (Ying col.20 lines 54-55 for a master node communicating with a slave node wherein the master mode in the master node is a command mode and a slave mode in the slave node is a listen mode and col.10 lines 12-14 for " slave node takes actions requested by the control message received from the master node.").

Regarding claim 6, the above combination discloses all the limitations in claim 1 and also discloses directing the session request, by the master computer system, to the plurality of slaves computer systems through serial communication channel (Ying for col.9 lines 27-30 where in the preferred embodiment, the communication over the data bus is using time-multiplexing such that only one node transmit over the particular data bus at a given time. By definition, serial, is one event at the time.).

Regarding claim 8, the above combination discloses all the limitations in claim 1, and also disclose maintaining communication switch device for the particular slave computer system in the answer mode; and returning each f the other salve computer systems from the answer mode to receive mode (Ying col.8 lines 15-19 for each node configured as slave node, remains

in a listen mode, receiving but not transmitting messages over the data bus, unless specially requested to transmit information over the data bus by the master node.).

Regarding claim 11, the above combination complies with all the limitation in claim 10, and also disclose each of the plurality of slave computer system to have assigned a respective one of a plurality of unique identifier that can be used by the master computer system to establish communication with that slave computer system (Ying col.10 lines 4-6 that the slave node is provided with a unique node identification number or address that distinguish it from all the other nodes, see col.10 lines 4-6).

Regarding claim 14, the above combination complies with all the limitation in claim 10, and also disclose after communication is established between the particular slave computer system and the master computer system, the particular slave computer system receives and executes commands from the master computer system (Ying col.20 lines 54-55 for a master node communicating with a slave node wherein the master mode in the master node is a command mode and a slave mode in the slave node is a listen mode and col.10 lines 12-14 for " slave node takes actions requested by the control message received from the master node.").

Regarding claim 15, the above combination complies with all the limitation in claim 10, and also disclose that the common communication channel is a serial communication channel (Ying for col.9 lines 27-30 where in the preferred embodiment, the communication over the data bus is using time-multiplexing such that only one node transmit over the particular data bus at a given time. By definition, serial, is one event at the time.).

Regarding claim 21 and 24, the above combination complies with all the limitation in claim 9 and 18, and also discloses that after communication between the particular slave

computer system and the master computer system is established, receiving and executing by the particular slave computers system, commands from the master computer system (Ying col.20 lines 54-55 for a master node communicating with a slave node wherein the master mode in the master node is a command mode and a slave mode in the slave node is a listen mode and col.10 lines 12-14 for " slave node takes actions requested by the control message  received from the master node.").

Regarding claim 25, the above combination complies with all the limitation in claim 10, and also discloses receiving the session request via the serial communication channel; and receiving the second request via the serial communication channel (Ying for col.9 lines 27-30 where in the preferred embodiment, the communication over the data bus is using time-multiplexing such that only one node transmit over the particular data bus at a given time.  By definition, serial, is one event at the time.).

Regarding claim 27, the above combination complies with all the limitation in claim 26, and also discloses means for transmitting a second request containing a unique identifier identifying the particular slave computer system in the second request (Ying col.10 lines 1-18 for the master node polling each of the slaves nodes periodically, where each of the slaves have a unique node identification number or address (unique identifier) and for the master sending a control message (second request) to each slave of the slaves nodes where only reacts if it recognizes its own node identification number or address in the control message).

Regarding claim 28 and 32, the above combination complies with all the limitation in claim 26, and also discloses maintaining communication between the master computer system and the particular slave computer system, issuing commands to the particular slave computer

system via the common communication channel (Ying col.20 lines 54-55 for a master node communicating with a slave node wherein the master mode in the master node is a command mode and a slave mode in the slave node is a listen mode and col.10 lines 12-14 for " slave node takes actions requested by the control message received from the master node.").

Regarding claim 29 and 33, the above combination complies with all the limitation in claim 26, and also discloses directing the session request, by the master computer system, to the plurality of slave computer systems through a serial communication channel (Ying for col.9 lines 27-30 where in the preferred embodiment, the communication over the data bus is using time-multiplexing such that only one node transmit over the particular data bus at a given time. By definition, serial, is one event at the time.).

Regarding claim 31, the above combination complies with all the limitation in claim 30, and also discloses transmitting a second request containing a unique identifier identifying the particular slave computer system in the second request (Ying col.10 lines 1-18 for the master node polling each of the slaves nodes periodically, where each of the slaves have a unique node identification number or address (unique identifier) and for the master sending a control message (second request) to each slave of the slaves nodes where only reacts if it recognizes its own node identification number or address in the control message).


5.      Claims 3 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ying U.S Patent No. 6,611,860 in view of Chiba JP No. 404096541 A in further view of Parise et al. U.S Patent No. 5,481,750.

Regarding claim 3, the above combination complies with all the limitation in claim 2, but fails to disclose storing a respective one of a plurality of unique identifiers within a non-volatile device of each of the plurality of slave computer systems; and storing the unique identification number of each of the plurality of slave computer systems in a memory device of the masters computer system.

However Parise discloses a master controller comprising a micro controller whose memory contains addresses relating to the slaves (Parise's abstract), and slaves comprising each an EEPROM memory (non-volatile) adapted to contain various addresses relating the particularly to the slave (Paris ecol.2 lines 23-29).

Therefore at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the above invention suggested by Ying in view of Chiba and combining it with the invention disclosed by Parise.

One of ordinary skill in the art would have been motivated to do this combination in order to make the process for allocation of addresses more reliable (Paris col.1 lines 23-27).

Regarding claim 12, Ying in view of Chiba complies with all the limitations in claim 11, but fails to disclose each of the plurality of slave computer system to have a respective non-volatile memory device that stores the respective unique identifier of that slave computer system.

However Parise discloses slaves comprising each an EEPROM memory (non-volatile) adapted to contain various addresses relating the particularly to the slave (Paris ecol.2 lines 23-29).

Therefore at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the above invention suggested by Ying in view of Chiba and combining it with the invention disclosed by Parise.

One of ordinary skill in the art would have been motivated to do this combination in order to make the process for allocation of addresses more reliable (Paris col.1 lines 23-27).

### *Response to Arguments*

6.      Applicant's arguments with respect to claims 1-2, 4-6, 8, 9-12, 14-15, 18, and 21 have been considered but are moot in view of the new ground(s) of rejection.

### *Conclusion*

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Xiomara Y. Ortiz whose telephone number is (703) 305-6783. The examiner can normally be reached on Monday-Thursday from 8:30AM to 5:30PM. The examiner can also be reached on alternate Fridays. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rupal Dharia can be reached on (703) 305-4003. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Xiomara Y. Ortiz
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